

Yao receives award and helps launch new center

By Eddy Ball

NIEHS lead researcher Humphrey Yao, Ph.D., was in Denmark last month, participating in the launch of a new research center May 15, and delivering presentations May 16 at the 18th European Testis Workshop ([ETW18](http://www.etw18.dk/18th_European_Testis_Workshop/Welcome.html)).

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Both events reflected the increasing interest in male reproductive development, and the effects of endocrine disruption on human health.

Yao heads the NIEHS Reproductive Developmental Biology Group, which studies the normal process of the formation of gonads and reproductive tracts during the early stages of prenatal development, and investigates whether this process is susceptible to *in utero* exposure to endocrine disruptors.

As a first of its kind, the new International Center for Research and Research Training in Endocrine Disruption of Male Reproduction and Child Health ([EDMaRC](http://www.edmarc.net/))

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will support multidisciplinary research led by internationally recognized scientists. EDMaRC is located in the Department of Growth and Reproduction at Rigshospitalet in Copenhagen, in close collaboration with the University of Copenhagen.

While at ETW18 in Elsinor, Yao gave two talks - "Autocrine/Paracrine Regulation of Sertoli Cell Identity in Fetal Mouse Testis" and "Hedgehog in the Testis: Its Role in Origins and Differentiation of Leydig Cells." Following his presentations, Yao was recognized as best speaker among the 21 plenary speakers at the workshop by the [International Network for Young Researchers in Male Fertility](http://www.youngresearch.eu/).

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An epidemic of male reproductive disorders

As Yao explained, ETW and EDMaRC are both dedicated to addressing disturbing trends in male reproductive health worldwide. "Danish researchers were among the first to publish a very famous hypothesis on testicular dysgenesis [abnormal development] syndrome," he said.

Detailed medical records for young men drafted in northern European countries document a steady increase over the past 30 years of poor sperm quality, undescended testes, testicular cancer, and hypospadias, or congenital defects in the opening of the penis. Researchers increasingly believe that these disorders may, in large part, be due to exposure to endocrine disrupting chemicals in the environment.

ETW18 is part of a series of conferences, founded in 1980, that rotate between Europe and the U.S., helping to raise awareness of male reproductive disorders. Research interest is strong in Denmark, especially in Copenhagen, where the Department of Growth and Reproduction at Rigshospitalet has been a global leader in the field. ETW18 attracted 162 scientists from 28 countries.

The program for the launch of EDMaRC included a statement of support from NIEHS and NTP Director Linda Birnbaum, Ph.D. "There is a great need for more research and training on the role of the environment and health, especially in the areas of disruptors and male reproduction ... through a center specifically set up to integrate research across the spectrum," she wrote.

"The Department of Growth and Reproduction [in Copenhagen] is not only internationally recognized as a leading center of research on the role of environment in male reproduction, but [it] also has the structure, expertise, and location that makes it the perfect setting for this type of translational research," she concluded.



Yao is the recipient of the Basal O'Connor Starter Scholar Research Award from March of Dimes Foundation, Pfizer Research Award, New Investigator Award from the Society for the Study of Reproduction, and Young Andrologist Award from the American Society of Andrology. (Photo courtesy of Steve McCaw)

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